



The Fire Marshal Trumpet

A quarterly publication of the Kansas State Fire Marshal's Office

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NOTES FROM THE FIRE MARSHAL

Jack Alexander, Kansas State Fire Marshal

Greetings to all and a thank you for your jobs done well. While we have been very busy throughout our agency, I want to commend all of you for the professionalism and diligence performed in difficult times on many tough issues.

Let me highlight just a few of the many things that have been going on. We are so very fortunate to have George Carter, the agency numbers guru, leading and managing our budget process. He again has done an outstanding job and we were able to glide through the budget process with few obstacles. We didn't get everything we wanted or maybe needed, but achieved success.

The senior staff had to prepare for several bills being prepared for introduction in the legislative session. First and foremost we had a bill to relocate our agency under the Kansas Bureau of Investigation. This bill did not move and received the notice it deserved. There were other bills being considered for introduction and only one of them made it out of committee. All of these bills in my opinion had some good parts to them but as presented would have required many additional FTEs and a huge increase in resources. We took the position on all of the bills to be supportive, but further recommended that the bills all be put into interim study so that our agency, the industry and legislators could discuss the situation. As of this writing I don't know if we will be able to get that accomplished, but we stand ready if we get the opportunity.

A huge thank you to those who testified and came to be in support of the agency as we dealt with these bills. I have enjoyed attending and representing the office at numerous meetings, activities, and speaking engagements. These activities were made enjoyable by you the employees of this agency doing what you do and the respect you continually earn.

Ours is a task that we take very seriously and we know that corrections for problems cost money and everyone has limitations. But be forever mindful that we are in the business of protecting property and preventing the loss of life. We will continue to be as cost conscious as we can but we can't put a dollar value on life.

The Fire Marshal Trumpet is designed, written, and edited by the employees and staff of the Kansas State Fire Marshal's Office in an effort to assist and inform the fire service and citizens of Kansas. Articles, ideas, and comments are welcome and may be submitted to:

Karl McNorton

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Hazardous Materials	Dan Thompson
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Prevention	Brenda McNorton
Youth Programs	Elena Nuss

FIRE PREVENTION

Dan McLaughlin, Chief Deputy State Fire Marshal

Propane Licensing Program

The new regulations for licensing propane companies became law on April 1, 2006 and now requires all propane companies doing business in the State of Kansas to be licensed by the State Fire Marshal's Office. This also includes any out of state companies doing business in Kansas. Governor Kathleen

Sebelius signed the Kansas Propane Safety and Licensing Act last year and appointed an advisory board to assist the Fire Marshal's Office in writing the guidelines for licensing, required training and recommending current code adoptions for the program.

The new handbooks are now being distributed to all propane companies representatives which includes the new codes adopted

NFPA 58-2004 edition and NFPA 54-2002 edition and the licensing applications and requirements. The licensing covers everything from dealer licensing through bulk storage sites, bottle fill operations, all public exchange cabinet locations, camper and automotive filling, installation service, delivery vehicles and self serve.

Licensing of Operations for LPG

By Dan McLaughlin, Chief Deputy State Fire Marshal

The new licensing regulations and NFPA code adoptions are now in effect for all LPG operations in the State of Kansas. Below is the break down of the time frame in which these regulations and code adoptions will be phased in.

Licensing: Renewal Annually

Application period will open from June 15 through July 15 of each year beginning in 2006. All licenses will be effective October 1 the current year and expires on September 30 the following year. All licenses and appropriate stickers will be mailed by September 15 of each year. All required documentation must accompany the application yearly.

Code Adoption: Effective Date: September 1, 2006

NFPA 58-2004 Edition, NFPA

54-2002 Edition, Exception is the Fire Analysis Requirement-Not required until January 2012 (NFPA 58).

Application Fee: Effective May 1, 2006. There will be an application fee for plans review.

Potential fire hazard involving an LP-gas fueled construction heater

By Dan McLaughlin, Chief Deputy State Fire Marshal

The Kansas Office of the State Fire Marshal has become aware of a potential fire hazard involving an LP-gas fueled construction heater. This heater was withdrawn from the market by its manufacturer/distributor, DESA, LLC of Bowling Green, Kentucky.

The heater in question is sold under four different trade names and model numbers. Reddy Heater RCP80VC, Master Heater TC80VC, Universal Heater 80CC, and all-Pro Heater SP80CC.

All of the withdrawn convection style heaters were manufactured between June 2005 and November 2005 and have serial numbers between



17390000 and 17632220.

The potential hazard is that these heaters may generate enough heat to cause floor discoloration and may possibly ignite wood, carpet, linoleum or other combustible floors.

It is our understanding that the manufacturer has notified retailers of this problem and, further, has ordered the removal of heaters from the shelves. There is a chance that small retailers may not be aware of the problem and may be continuing to sell the units. These heaters are sold at lumberyards, home improvement stores, farm supply stores, rental stores, hardware stores and "big box stores".

Safe Kids Kansas annual Awards

By Dan McLaughlin, Chief
Deputy State Fire Marshal

The Safe Kids Kansas met on December 6, 2005 to present annual awards. At the quarterly meeting for the third time in five years an employee of the State of Kansas received the highest award given by the Coalition. The Outstanding Coalition Member Award was presented to Elena Nuss, Youth Program Services Division Chief with the Kansas State Fire Marshal. Ms. Nuss served as a chair of the Coalition and Executive Board for the past three years. Her leadership and involvement in the Coalition over the past five years contributed toward Safe Kids Kansas receiving the Coalition of the Year.

Hood Suppression Systems:

By Brenda McNorton,
Chief, Fire Prevention

Recently during inspection of facilities our staff has been running into issues with hood suppression systems. The seams and rivets are not smooth/sealed to prevent the collection of grease. The hood suppression system is riveted instead of welded.

All seams and rivets of the hood enclosure that capture grease-laden vapors and exhaust gases need a liquid tight continuous external weld to the hoods lower-outermost perimeter. Internal hood joints, seams, filter-support frames and appendages attached inside the hood need not be welded, only sealed tight.

Fire Watch Guidelines for Health Care Facilities:

By Brenda McNorton,
Chief, Fire Prevention

If a health care facility (nursing home or hospital) has gone into fire watch, it is a requirement they must notify the State Fire Marshal's Office.

If a facility has a sprinkler system or a fire alarm system that will be out of service for more than 4 hours, it is a requirement that they notify KSFMO. A phone call only needs to be done on the first day of fire watch.

Remember fire watch starts immediately. One person is designated to do the fire watch rounds, no other duties may be given to that person. Special

attention should be given to hazardous areas.

At the end of each day the fire watch log needs to be faxed to the KSFMO. With the final fire watch being faxed (when system is back up and in working order) a statement regarding the system is in working condition will be required on the fax.

Prom Decorating

By Kenya Patzer,
Prevention Enforcement

The following information is being sent to Kansas schools within the next few weeks. We encourage you to review this information with your fire departments, since you may be fielding questions and phone calls from your local school administrators. Also, keep these items in mind when doing company or annual inspections over the next few months. As always, please don't hesitate to contact us with questions or clarifications.

Prom and Dances

The end of the school year is rapidly approaching, and with it come annual dances and graduation ceremonies. After reading this material, please review your written policies and procedures and consider making any necessary changes.

Prom season is fast approaching, and with this hallmark event come a variety of fire and life safety hazards. There are certain key points to remember when planning your school's prom and post-prom activities:

- * Make sure all exits are accessible and free from impediments.



Also make sure that all exit signs can be clearly seen and aren't hidden by any decorations.

- * The minimum clear width in exit corridors must be maintained at six feet.
- * Combustible materials like paper or fabric can not make up more than 20% of ceilings and walls, unless the material meets an appropriate level of flame resistance.
- * Highly flammable materials (hay bales, etc.) can not be used inside for any reason.
- * Abide by all established occupancy limits. If you're not sure how many people a space can safely hold, ask!
- * Do not hang any decorations (fabric, streamers, posters, etc.) from sprinkler pipes.
- * Maintain a minimum of 18" between sprinkler heads and any prop or decoration placed underneath it.
- * Check the fire alarm system to make sure it's functioning properly.

In addition to these requirements, use common sense as well. If special lights are being used, examine the cords to make sure they aren't frayed and are in good working order. Don't overload circuits, and follow manufacturer directions when using Christmas tree lights, extension cords, and power strips. Plan ahead for emergencies: if the tornado sirens sound or some other emergency occurs, have a plan to get students to safety.

By keeping safety in the forefront of planning, we can all make sure prom nights across Kansas end in excitement instead of tragedy.

Commencement and Graduation Exercises

End-of-year commencement exercises typically stretch stadium and arena

capacities to the limits. By understanding your responsibilities as school administrators and by planning ahead for the mass of family, friends, and well-wishers attending your graduation celebrations, you can keep attendees safe from the dangers of overcrowding.

- * **Before the event, check all exits.** Make sure they are operable, accessible, and in good working order. Make sure there are no loose items in the area that could block exits or become trip hazards.
- * **Check all emergency equipment.** Make sure your annual and monthly tests are current for emergency lights and generators. Ensure that the fire alarm system is functioning normally and operable.
- * **Check written emergency procedures and shelters.** In the event of severe weather, make sure emergency shelters are accessible and ready for use. Make sure all ushers and staff members know their roles in the event of an emergency. Verify that pre-written announcements for fire, severe weather, or bomb threats are available to announcers. Monitor weather conditions during the event.
- * **Strictly observe occupancy limits.** These limits were established for a reason, and they are not simply suggestions. At no time can more than the set maximum number of occupants be admitted to the event.
- * **At the event, make a public safety announcement.** This is required by state law when events are attended by more than 300 people. The announcement

can be given before the program or printed in a program, and should state the following: *"In accordance with Kansas State Fire Marshal regulations, we request that you take a moment to identify the two emergency exits closest to you. We have checked these exits and the other emergency equipment in this building and verify they are available for use in case of emergency. In case of an emergency, pay close attention to the announcer or your usher for important life safety information,"* or equivalent language.

- * **During the event, check aisles and exits.** Make sure these paths are clear and free of anything that could impair exiting.

- * **Know whether you are required to provide trained crowd managers.** At events attended by more than 1,000 persons, trained crowd managers/ushers shall be provided at a ratio of at least one crowd manager for every 250 occupants. Training for these individuals should include familiarization with fire and tornado alarm sounds, knowledge of exit and emergency shelter locations, and appropriate behavior during an emergency.

Remember, the building owner is responsible for providing an adequate level of fire and life safety for those attending your event.

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KSFM Personnel, Duties and Contact Numbers

Here is a list of the frequently used names and phone numbers of people to contact for answers to specific questions. This list will provide the categories of duties, names and phone numbers to contact, so hopefully it will be easier and quicker to get answers.

Administration:

Debra Courtney Her duties are as follows: Web Site and email, The Trumpet, Press Releases, videos, the Kansas Burn Injury Reporting System, and administrative support for Karl McNorton, Dan McLaughlin, Rebecca Weeks and Beth Fenske.

IT Information:

Brenda Reber Duties are Incident Reports-imports, exports and coding questions, critical error reports, trouble shoots on Incident Reports, updates and requests, fire department list requests, Tier II, updates, vehicle inspection form, Firehouse, KILR, updates the Kansas Insurance Department Directory Change Reports.

Hazmat Division:

Nan Hipsher Her duties include Hazmat administrative support.

Prevention:

Carol McDonald The duties are to enter fire prevention inspection reports, prepare billings for federal health care inspections, import Aspen files from

inspectors, schedule the licensed group and home day care inspections requests sent to KSFMO by KDHE and relay inquiries from facilities to inspectors.

Barbara Sumpter She works mainly for Mike Heim, and Jack Chatmon logging in all plans and maintaining activity status. Code questions or questions about plans for a new or existing facility are handled by Mike, or Jack.

Jack Chatmon Duties are alarm systems, smoke detectors, plan reviews for (new & existing) construction, fire alarm systems, healthcare facilities, residential board and care, sprinkler systems, and LP Gas enforcement.

Mike Heim His duties are aboveground tanks, bulk fuel storage, LPG licensing, healthcare facilities, juvenile facilities, new school construction, schools K-12, non-public buildings, fuels (new), hotel/motel questions, plan reviews for childcare and correctional facilities.

Kenya Patzer She handles the enforcement for schools, daycare/childcare/pre-school, colleges and universities, and correctional facilities. She can take questions on inspections and scheduling inspections for those types of buildings, but NOT license amendments, plans reviews, or detailed code questions.

Diana Sabatino Her duties are nursing homes, LTCU (Long Term Care Unit), ICF/MR (Intermediate Care Facility/Mental Retardation),

CAH (Critical Access Hospitals), ASC (Ambulatory Surgical Centers), and Hospitals (federal only).

Investigation Division:

Carolyn Miles Her duties are taking messages for or people wanting to speak to investigators, anything related to certified fire investigators, subpoenas for the investigators and requests for copies of investigative reports. Back up for explosive divisions calls and Explosive Investigation reports.

Amanda Yorkey She answers the explosive questions, explosive investigator reports, Explosive Blaster applications and licensing, Explosive User applications and licensing, Explosive Storage applications/licensing, Fireworks Applications/licensing, fireworks testing, backup for the Investigation Division calls, and Fire Investigator Reports.

Other helpful phone numbers:
State Operator- # 785-296-0111
Boiler Room Inspections
785-296-4379
Firemans Relief Fund,
John Washburn, Insurance
Department # 785-296-7831



Special Operations

Karl W. McNorton, Chief Deputy State Fire Marshal

Governor Kathleen Sebelius proclaimed the month of May as Arson Awareness Month

By Karl W. McNorton, Chief Deputy State Fire Marshal

Kansas Governor Kathleen Sebelius proclaimed the month of May as Arson Awareness Month. Attending the proclamation signing were members of the Kansas Committee on Arson Prevention. The committee's purpose is to promote the mutual interests of its members in controlling the crime of arson and to alert the general public as to the consequences of arson and the need for action to control it.

The crime of arson causes hundreds of deaths and injuries and over \$4 billion in property and other economic losses each year in this great

nation of ours; and Kansas averages over 2,000 arson fires per year for the last five years as reported to the State Fire Marshal. These fires resulted in the deaths of 65 citizens, injured 139 citizens and 219 fire service personnel and over \$86 million in property damage.

This crime costs the citizens of Kansas 25 cents of every dollar they pay in insurance premiums, to cover the devastating cost of arson.

The Kansas Committee on Arson Prevention, a statewide coalition of law enforcement, fire service and insurance

industry professionals working to combat the costly crime of arson, urge Kansans to report information they might have about fires in their community to the State of Kansas toll-free Crime/Arson Hotline at 1-800-KS-Crime.

State Fire Marshal Jack Alexander and the dedicated staff of the Kansas State Fire Marshal's Office, in cooperation with the Kansas Committee on Arson Prevention, urge all Kansans to help in our crusade to put arsonists out of business.



Standing Jack Alexander, Chris Brown, Karl McNorton, Mary Little, Marcia Jarmer, Rose Rozmiarek, and Mark McCleary, seated is Governor Kathleen Sebelius.



An Open Letter from the Kansas Committee on Arson Prevention

Dear Fire Chief or Law Enforcement Officer:

The following is copy for an advertisement your fire, police or sheriff's department can use in your local newspaper to make folks aware you are looking for information that will aid you in locating the individual(s) responsible for a particular fire. Feel free to personalize the advertisement to include the location of the fire, fire department or law enforcement information, etc.

The amount of the reward is "UP TO \$5,000" and not "\$5,000." It is imperative you include the appropriate wording in any advertisements. The rewards are based on information provided and the benefits derived from that information. The Kansas Committee on Arson Prevention Executive Board evaluates the reward nomination and the amount recommended by the nominator.

In addition, posters that provide reward information and a confidential method for relaying that information are available for placement at a fire scene. Posters come in both English and Spanish and can be ordered through Karl McNorton at the Kansas State Fire Marshal's Office.

REWARD * REWARD * REWARD FOR INFORMATION ON ARSON FIRE

Twenty-five cents of every dollar paid in insurance premiums is collected to cover the costs of arson and arson-related crimes. We urge every Kansan to join the crusade to put arsonists in Kansas out of business.

Call 1-800-KS-CRIME if you have information about a suspicious fire. Information leading to the arrest and conviction of arsonists may result in a reward of up to \$5,000 from the Kansas Committee on Arson Prevention. Information is confidential.

Kansas Committee on Arson Prevention
700 SW Jackson, Suite 600, Topeka, Kansas 66603
Kansas Arson Hotline: 1-900-KS-CRIME



Investigations Division

Rose Rozmiarek, Chief of Investigations Division



The agency would like to welcome Paul Thomas who began his employment with this agency effective April 10, 2006. Paul will be working in the Explosive Unit and his domicile will be the Salina area. He will be working the northern half of the state. Paul comes to this agency with extensive training in the military, security and law enforcement fields. He has a strong background in explosives and hazardous materials with experience in handling, construction, reconstruction, safety and knowledge of various explosive items.

FIREWORKS MANUFACTURER, CONSUMER AND DISPLAY SITE TRAINING PROGRAM

By Rose Rozmiarek, Chief of Investigations Division

The American Pyrotechnics Association (APA) is offering a one day training program for the State of Kansas Fire Service and other enforcement officials regarding the sale of consumer fireworks, manufacturing, and the best industry practices at public fireworks display sites.

The one day program will review the applicable codes and regulations of the ATF, DOT, OSHA and NFPA. The program will address fireworks manufacturing and the types of fireworks used by industry as well as devices that enforcement authorities may come in contact with including: Division 1.4G and 1.4S Articles Pyrotechnic, 1.3G and 1.1G Display Fireworks; 1.4G Consumer Fireworks, Indoor "Proximate" pyrotechnics and illegal fireworks (prohibited explosives).

Additional topics to be covered in the training include proper storage for fireworks; transportation; emergencies at the storage facility and on the road; and display site management. The display site management segment of the training program will cover the following key areas:

- * Types of displays: aerial, low level, land, floating platform and barge displays
- * Display Site Venues
- * Permits
- * Equipment Types and Set-Ups
- * Personal Protective/Safety Equipment
- * Lead Pyrotechnician Responsibilities
- * Dealing with Emergencies on the Display Site
- * Fallout Zone, Crowd Control, Weather Conditions
- * Firing the Display
- * Handling of Duds, Misfires and Post Display Cleanup

The training program will also include an overview of the industry and the impact of the recently enacted Safe Explosives Act and its impact on the professional fireworks industry.

The date of the program is Tuesday, June 6th, 2006 at Washburn University, Henderson Hall Room 100. Cost is free and it will begin promptly at 9:00 and go until noon. Lunch break (on your own) from 12:00 to 1:00 PM. Then back in the class until 4:00 PM. Will take ten minute breaks on the hour if need be. Note: the start and end times may vary due to scheduling, class size and specific training venues circumstances. Class space is limited and registration is required by contacting Carolyn Miles at KSFM, 700 SW Jackson, Ste., 600. Topeka, KS 66603. Carolyn Miles phone number is 785-296-8984 or the fax number is 785-368-6559.



Tribute to former Fire Chief in Hillsboro

By Karl W. McNorton, Chief Deputy State Fire Marshal

Wayne Leslie Lowry passed away January 6, 2006. He was a member of Hillsboro volunteer fire department for 38 years and fire chief for 26 years. He retired in 2001. Mr. Lowry was honored with full rites from the Chanute Fire Depart-

ment Honor Guard, and Masonic rites as the service concluded with a final firefighter's call from the Marion County Communications Center. The funeral was led by a Hillsboro fire truck driven by Lowry's successor. He is fire chief Ben

Stektee. He was a member of the Kansas State Firefighters Association and a life member of the Kansas State Fire Chiefs Association. Wayne Lowry was a man to be remembered for his long commitment to the fire service.

Kansas Committee on Arson Prevention

By Karl W. McNorton, Chief Deputy State Fire Marshal

The Kansas Committee on Arson Prevention met April 25th, 2006 at the Top of the Tower Restaurant. The meeting was preceded by the signing of the Proclamation for Arson Awareness Month for the month of May. The committee's purpose is to help promote and advance the mutual interests of its members in controlling the

crime of arson. The committee membership is made up of interested parties from the insurance industry, fire service, law enforcement, prosecutor's, the State Insurance Commissioner, the Director of the KBI, and the State Fire Marshal. Elections of officers were held. Chris Brown, Upland Mutual Insurance, President, Jack

Alexander, State Fire Marshal, Vice President, and Karl W. McNorton, Chief Deputy State Fire Marshal, Secretary/Treasurer. Business items discussed were nominations for rewards for individuals who provided key information towards the arrest and prosecution of arsonists.

The Fire Marshal's Association of Kansas

By Karl W. McNorton, Chief Deputy State Fire Marshal

The FMAK met April 26, 2006 at 10 am at the Kansas Fire & Rescue Training Institute facility. Many thanks to Glen Pribbenow for the accommodations. For those who don't know, FMAK promotes the preservation of life and property through inspection, investigation, and public education. The group discussed several

legislative issues that arose this past session and also discussed many upcoming events. Elections of officers were held for the positions of President, Secretary for two-year terms and member-at-large for a one-year term. Elected was Karl McNorton, President, Kansas State Fire Marshal's Office; Lowell Ester, Secretary,

Mulvane Fire Department, and Walter Rooney, Member-at-large, Sedgwick County Fire Department. Other officers are Gary Bowker, Vice-President, Winfield Fire Department, and Vicki Zielinski, Treasurer, Topeka Fire Department.



HAZMAT DIVISION

Dan Thompson, Chief , HazMat Division

Kansas State Fire Marshal's Office

Hazardous Materials Division

Contact Information

HazMat Toll Free #: 1-866-542-9628

Pager No's:

Dan Thompson 785-357-3295
A.J. Clemmons 785-357-3192
Karl McNorton 785-270-2305
Group Pager 785-357-3261
Alpha Numeric Page www.myairmail.com

Personal Cell Phone Numbers:

Dan Thompson 785-224-9315
A.J. Clemmons 785-633-8908
Karl McNorton 785-640-2376

Radio Frequencies:

Repeaters not available yet – Use Direct (talk-around)

Receive & talk-around – – 866.700

Transmit – – – – – 821.700

DPL Code – – – – – 023

Call Signs:

Dan Thompson State Haz-Mat 1
A.J. Clemmons State Haz-Mat 2

Home Phone Numbers:

Dan Thompson 785-232-8213
A.J. Clemmons 785-235-9761
Karl McNorton 785-286-3151

For more training information see <http://ks.train.org> or www.accesskansas.org/firemarshal .

By Dan Thompson, Chief , HazMat Division

clip and save

Documenting what went wrong at a hazardous materials incident, or any other type of response for that matter, is critical in protecting ourselves and our cities in the legal realm, and for determining if the job that we are doing can be improved upon or made safer. After an incident of any kind a report should be made as to what happened and what procedures were followed, what went wrong and what went right. This allows for self improvement and adjustment in re-

sponse procedure if needed. This is an invaluable learning tool to assess and improve our capabilities. In the legal realm these narratives or reports provide a way for the responders to accurately remember what happened and what they did 3 or 4 years or more in the past when questioned in a court of law. We have included a narrative from one of our haz-mat response teams incidents.

Actual account of the report: At 0932, Engines 1,2,3, Haz Mat 2, and

Fire 6 responded to King Hall, KSU for a chemical spill. Upon arrival, crews met with Steve Galitzer, Director of KSU Public Safety at the north end of King Hall. Mr. Galitzer advised us that a lab worker dropped and broke a container spilling 1 liter of ammonium hydroxide in room 114 and evacuated the area. Another employee attempted to dispense a Nanoscale Fast Act extinguisher into the room but was forced to leave the area due to discomfort from the fumes.



KSUPD and staff had secured the 1st floor of the north wing of the building. Mr. Galitzer stated that his knowledge of the product determined the primary hazard to be inhalation and corrosive and proper decon could be done with soap and water. BC Worden took command of the incident and appointed Lt. Blanck to operations. FD Voth was assigned to Sci-

ence Officer, FD Samenus to Decon Officer, and all on scene personnel were assigned to report to their respective supervisors. HazMat 2 was positioned and Command established on the southwest corner of the building (side A) on Mid Campus Drive. KSUPD was used as well as the fire engines to control traffic on the streets and a hot zone was established with

scene tape to secure the entrance. Access to the unaffected area of the building and adjacent sidewalks remained open. FD Voth concurred with the initial consensus of hazards and we determined that Level A suits (see **photo below**) would be used as PPE. CTO Clark and Inspector Almes arrived and were assigned to Safety Officer and Accountability, respectively. FD



McKinley and FF Gall entered the area of the spill with Level A PPE and two Fast Act extinguishers. They dispensed the extinguishers into the air and onto the spilled liquid product in the 20 ft x 20 ft supply room and exited the area. The entry team re-entered with litmus paper and a Drager pump loaded with a glass ammonia tube. The ammonia tube was satu-

rated indicating a minimum of 3 ppm ammonia in the room. The entry team retreated and reported to decon. After approximately 20 minutes, a second entry team entered the area with the Multi-Rae and MSA PID instruments. They reported readings that after conversion were 5-8 ppm. It was determined that the levels of ammonia were safe to enter and no further mitigation

was needed. The second entry team retreated to decon. CTO Clark and FD Evans accompanied Steve Galitzer into the building to examine the area and give a final all clear for personnel and staff to re-enter the building. The building was turned over to Mr. Galitzer for cleanup and crews began to demobilize. At 1258 all units cleared and Fire 6 terminated the incident.



OTOTOXINS

CHEMICALS THAT CAUSE HEARING LOSS

By Dan Thompson, Chief, HazMat Division

Ototoxins or Ear Poisons are a threat to our hearing. These chemicals target the auditory nerve and cochlear hair cells in the inner ear leading to problems and deleterious effects from ringing ears to profound deafness.

See useful links: <http://chppm-www.apgea.army.mil/>

http://www.cdc.gov/niosh/nas/hlr/whpa_stragGoal4_6.html

<http://www.cdc.gov/niosh/topics/niose/research/noiseandchem/noiseandchem.html>

The combination of noise and chemicals may boost risk levels by up to eleven times. Workers are exposed to this high combined risk even when the noise or chemicals alone are within acceptable levels.

Inhalation exposure to some chemicals may cause hearing loss, independent of noise exposure. Some chemicals may not cause hearing loss, independently, but may cause potentiate noise-induced hearing loss. Chemicals may have additive or synergistic effects with noise exposure. Chemical substances have shown ototoxic effects at high airborne levels but may not be ototoxic in the concentrations observed in occupational settings. Potential ototoxin chemicals (e.g., toluene, xylene, n-hexane, organic tin, carbon disulfide, mercury, organic lead, hydrogen cyanide, diesel fuel, organophosphate pesticides, chemical warfare nerve agents) may be absorbed through the skin, and may significantly contribute to the systemic dose if dermal exposures are not properly controlled.

Audiometric data is useful for any worker exposed to any measurable level of a potential ototoxic chemical. Yearly audiograms are highly recommended for workers whose airborne exposures (without regard to respiratory protection worn) are at 50% or more of the Occupational Safety and Health Administration Permissible

EAR POISONS

NIOSH High Priority Ototoxins

Alcohols	Styrene
Carbon Monoxide	Toluene
n-Hexane	Trichloroethylene
Lead and Derivaties	Xylenes
Mixtures of the above	

NIOSH Additional Ototoxins

Arsenic	Cobalt
Atoxi	Cyanide
Benzene	Manganese
Butyl Nitrite	Mercury and Derivatives
Carbon Disulfide	Methylene Chloride

Exposure Limit or the American Conference of Industrial Hygienists Threshold Limit Value for the substance in question, regardless of the noise level.

If you are currently participating in a hearing program due to noise, the reviewers of the data should be alert to possible additive, potentiating, or synergistic effects between the exposure to noise and chemical substance.



Responding to Incidents Involving Ethanol and Gasoline Fuel Mixtures

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is alerting emergency responders to appropriate emergency response guidance for responding to incidents involving fuel mixtures composed of ethanol (or "ethyl alcohol") and gasoline in various concentrations. The most common of these fuels, designated E85 (85% ethanol and 15% gasoline), recently has begun to be used in volume in the Midwest, primarily in the states of Illinois and Minnesota.

Fires involving E85 and other ethanol/gasoline mixtures containing more than 10% ethanol should be treated differently than the traditional gasoline fires because these mixtures are polar/water-miscible flammable liquids (i.e., they mix readily with water) and will degrade the effectiveness of fire-

fighting foam which is not alcohol-resistant. For this reason, PHMSA recommends use of alcohol-resistant foam to fight fires involving these fuel mixtures. Properties of ethanol/gasoline fuels that may be of interest to emergency responders are provided in the *chart below*.

There are a number of shipping descriptions in the Hazardous Materials Regulations (Title 49, Code of Federal Regulations, Parts 171-180) for mixtures containing ethyl alcohol and gasoline. "Alcohols, n.o.s." and "Denatured alcohol" may be used for mixtures containing up to 5% gasoline. The appropriate proper shipping name for E85 is "Flammable liquid, n.o.s. (ethanol, gasoline)."

PHMSA recommends First Responders refer to guide 127 (Flammable Liquids Polar/Water-Mis-

cible) of the 2004 Emergency Response guidebook (ERG 2004) when responding to incidents involving E85 and other fuel mixtures known to contain or potentially contain more than 10% alcohol. Guide 127 (<http://hazmat.dot.gov/pubs/erg/gl27.pdf>) specifies the use of alcohol resistant foam. PHMSA is currently evaluating the need for changes to shipping descriptions or other hazard communication requirements for alcohol/gasoline fuel mixtures to ensure that these mixtures are readily identifiable and refer emergency responders to guidance specifying use of alcohol-resistant foam. In the interim, PHMSA recommends the use of alcohol-resistant foam to fight fires involving fuel mixtures known to contain or potentially containing more than 10% alcohol. This article provided by U.S. Department of Transportation and the Pipeline & Hazardous Materials Safety Administration. For more information go to <http://hazmat.dot.gov>, or the National Response Center *1-800-424-8802*.

PROPERTIES OF FUEL ETHANOL

Property	Comment
Vapor density	Ethanol vapor, like gasoline vapor, is denser than air and tends to settle in low areas. However, ethanol vapor disperses rapidly.
Solubility in water	Fuel ethanol will mix with water, but at high enough concentrations of water, the ethanol will separate from the gasoline.
Flame visibility	A fuel ethanol flame is less bright than a gasoline flame but is easily visible in daylight.
Specific gravity	Pure ethanol and ethanol blends are heavier than gasoline.
Conductivity	Ethanol and ethanol blends conduct electricity. Gasoline, by contrast, is an electrical insulator.
Toxicity	Ethanol is less toxic than gasoline or methanol. Carcinogenic compounds are not present in pure ethanol; however, because gasoline is used in the blend, E85 is considered to be potentially carcinogenic.
Flammability	At low temperature (32 degrees), E85 vapor is more flammable than gasoline vapor. However at normal temperatures, E85 vapor is less flammable than gasoline, because of the higher autoignition temperature of E85.

Mixtures Containing Ethyl Alcohol and Gasoline Alcohols, n.o.s., 3, UN1987
[Special Provision 172 allows alcohol mixtures containing up to 5% gasoline under this description]
Denatured alcohol, 3, NA1987
[Special Provision 172 allows alcohol mixtures containing up to 5% gasoline under this description]
Flammable liquid, n.o.s. (ethanol, gasoline), 3, UN1993
[May include varying concentrations of ethanol/gasoline]
Gasohol, 3, NA1203
[Authorized for gasoline mixed with not more than 20% ethanol for U.S. shipments only]

